CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorised person is prohibited by law.

25X1

CONFIDENTIAL - U.S. OFFICIALS ONLY

COUNTRY	USSR (Baltic)	REPORT
SUBJECT	Brench Office Lomonosov of	DATE DISTR. 17 February 1955
_	NII 400 in Leningrad	NO. OF PAGES 7
DATE OF INFO.		REQUIREMENT NO. RD
PLACE ACQUIRED		REFERENCES
L		

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.

THE APPRAISAL OF CONTENT IS TENTATIVE.

(POR KEY SEE REVERSE)

25X1

25X1

- 1. Prior to April 1947, the OTB (Osobyy Tekhnicheskiy Byuro: Special Technical Bureau) was located in the Sestroretsk quarter of Leningrad and was subordinate to the Ministry of the Navy. According to informat, the group of deported German scientists attached to the OTB worked on reports covering German technological achievements up to 1945. They lived in a house in Sestroretsk and were allowed considerable freedom of movement without escorts.
- 2. In the spring of 1947, the OTB was redesignated a branch of Institute NII 400, Leningrad, which was located near the intersection of Pesochnaya and Vyasenskaya ditsy (grid square J5b on the 1939 Leningrad town plan). At the time of its indesignation, the office moved to the former imperial castle at Lomonosov, where the German scientists were assigned quarters. Since the castle required considerable reconditioning, the German group did some work on designs for improvement of the research facilities of the building, including establishment of an accoustics laboratory. None of the plans were executed, however, and the German scientists worked under rather primitive conditions.
- 3. In the spring of 1948, the institute passed under the control of the Ministry of Shipbuilding. Thereafter, probably for security reasons, the installation at Lomonosov was known simply as "Branch Office Lomonosov", and the freedom of movement of the German personnel was curtailed. The Soviet camp commander, an LWD officer, made every movement outside the irstallation dependent on special permission and availability of Soviet escorts.
- 4. Informant said that the over-all mission of NII 400 in Leningrad was the development of technical devices for the merchant marine. Developmental work

CONFIDENTIAL - U.S. OFFICIALS ONLY

STATE	x	ARMY .	x	NAVY	х	AIR	х	FBI	Ι	ASC			$\perp \perp$

25X1

Approved For Release	2007/06/22 .	CIA PDD80	008104005	300000010
Approved For Release	2007/00/22 .	CIA-KDPOU	·UUO IUAUUS)3009900 IO-

FIDENTIAL - U.S. OFFICIALS CHLY

at the Lomonosov branch, however, was done for the navy. Missions assigned to the institute at Lomonosov included the development and manufacture of prototypes of an accoustic mine-firing unit, a target-seeking torpedo head, and a Walter power plant to be used as a propulsion unit for torpedoes.

25X1

25X1

5.	The	German	scientists	vere	organized	ir.to	tlirec	groups	as	follows	

25X²

- a. The Kell group, which worked on development of analyzers and sound spectrometers for the low-frequency range. The equipment was to be used for an accoustic mine fuse.
- b. The Gloede-Martin group, which worked on the development of analyzers and sound spectrometers for the high-frequency range to be installed in target-seeking torpedo heads.
- c. The Lawitschka group, which worked on the development of Ingolin-type engines to be used for the propulsion of torpedocs.
- 6. Defore 1948, the group headed by Koll had developed a low-frequency transmitter designated "Baraban" to be used in mine sweeping activities, but the work was discontinued when the institute was placed under control of the Enistry of Shipbuilding. The outstanding achievement of the Koll group was the development of a new type of sound analyzer utilizing so-called Tuttle-units. Recistance-capacity coupled oscillating circuits, having the property of climinating a specific frequency from a bundle of frequencies were installed in the instrument. The utilization of coupled Tuttle-units made it possible to increase the land width of the analyzer. The advantage of this type of set us that a fixed ratio existed between the band width and the frequency. Hornally, a band width of three percent was selected. This meant that a frequency of three cycles per second was cut out when a frequency of 100 eyeles per second was used. The analyzers developed made it possible to find out the espential frequencies of a sound in a few minutes. He effort was made to climinate background noise or jaming. Source believed that the Soviets were interested in the project for its potentialities in measuring sounds produced by a ship in petion.
- T. Another project completed by the Koll group involved the building of radiature oscillograph. Researing ten cubic continetors and designed to record data received by torpid boads. Sound transmitters civiler to those built by the Atlas Works at Break, were used at Lomonosov. Equipment also incorporated Normann-type recorders, which recorded measured sound values on wax paper.
- the Gloeds-kantin group worked in two sections. The group under Gloede developed on apparatus for the calibration of submarine sound receivers or the basis of the reciprocity misciple. Experimental receivers were built incorporating a nonline biphosphate crystals, which were prepared in Essou and proved excellent. No officient sound receivers were constructed, however, because the Soviet requirements for constitivity of the sets were emaggerated. In 1952, receiver sets believed to be disputable from torpode heads arrived at the institute for the allignation of poide lines.
- 5. Its though proup also constructed a sound spectrometer for high-frequency waves transming 10,000 to 100,000 cycles per second. An operating procedure developed by Sietems-Proystadt was utilized. The equipment incorporated fixed filters of half-octave width, which were swept by a rotating switch. The values obtained note indicated in a cathode ray tube. The construction of the rotating switch proceded difficulties to which no satisfactory solution was found.
- 10. The larthe group built a sound pressure meter designed for an intensity range from 0.1 to 1.000 microbar, and a frequency range from 50 to 10,000 sycles per record. The equipment never operated satisfactorily, however, because of the enemerated specifications set. The Soviets were particularly interested in mailrasorie and ultrasorie waves. Source believed, however, that what they were weld by the German experts in this field did not go beyond information contained to the English monal by Coole.

COMPIDENTIAL - U.S. OFFICIALS ONLY

Approved For Release 2007/06/22: CIA-RDP80-00810A005300990010-7

CONFIDENTIAL - U.S. OFFICIALS ONLY

25X1

-3-

- 11. The group of engineers headed by Lawitschka developed an Ingolin-type motor for installation in torpedoes, designed to increase their speed and efficiency. Experiments were conducted in the park of Lomonosov Castle in an above-ground bunker the size of a one-story house, which was off-limits to all unauthorized personnel. Work on the Ingolin-type motor was later transferred to the Svetlov Plant at Feodosiya (N 45-02, E 35-24), in the Crimea, and Germans were allegedly excluded from this advanced developmental work. Another plant engaged in torpedo development work was said to be located at Makhachkala (N 42-58, E 47-27), near the Caspian Sea. Although some German experts were employed at the latter plant, Lawitschka was unable to effect a transfer from Lomonosov.
- Professors Rusakov and Voroskiy (or Vorbskiy) from the Leningrad Bureau of Standards (sic) repeatedly visited the institute at Lomonosov and informed the German experts about requirements for sound analyzers and spectrometers. Rusakov was apparently well informed on the propagation of sound waves. Professor M. M. Andreyov, chief of the Institute of Accoustics of the Moscow Academy of Sciences visited the institute twice. Another Soviet scientist who visited the institute was Dr. Gutin, an expert in the field of noises produced by screws, and editor of a magazine on theoretical physics. Dr. Gutin worked at a Leningrad shipyard (located in grid square 03b of the Leningrad town plan). Source recalled the name of another Soviet, Kharkevich, who had been mentioned in scientific publications. The Soviets appeared unwilling to exploit the technical skill and experience of the German experts. For some time after their arrival, the latter had nothing to do because of Soviet delay in issuing precise orders, and even after the assignment of projects, the Germans worked in an atmosphere of distrust.

25X1

25X1

13. Facilities for scientific research work at Lomonosov were primitive. The German experts working on measuring instruments were assigned one large room about 15 meters square, which was equipped with work tables, plugs, and soldering irons. Switchboards which could be lowered were available. A water basin, seven meters long, four meters wide, and four meters deep, was used for sound measurements. The group also had at its disposal a precision mechanical workshop equipped with all the tools required for the manufacture of chassis and models. The Lawitschka group worked in a well-equipped workshop and also used the bunker in the park of the castle. Fuel for developmental work arrived in tank trucks driven by civilian personnel and was stored in tanks. Technical literature available at Lomonosov consisted of a few Soviet technical magazines, but an adequate supply of scientific literature was accessible at the Lemingrad Manicipal Library.

CONFIDENTIAL - U.S. OFFICIALS OFLY

